



## Sewer System Management Plan Annual Audit Report

Name of agency	City of Chula Vista
Date of audit	April 2011
Name of auditor	Tim Weinman
<b>System Overview</b>	
LF of gravity sewer mains	2,562,177 (per GIS)
LF of force mains	14,310 (per GIS)
Total LF of all sewer lines	2,576,487 (per GIS)
Number of pump stations	12
Population served	244,000
Current average monthly single family residential sewer rate	\$40.86

### I. GOALS

1. Are the goals stated in the SSMP still appropriate and accurate? **YES**/ NO  
(circle one)
2. If you answered NO to question 1, describe content and schedule for updates.

### II. ORGANIZATION

#### REFERENCE MATERIAL

- **Organization chart**
- **Phone list**

3. Is the SSMP up-to-date with agency organization and staffing contact information? **YES**/ NO
4. If you answered NO to question 3, describe content and schedule for updates.

### III. LEGAL AUTHORITY

#### REFERENCE MATERIAL

- **Ordinances**
- **Enforcement actions**

5. Does the SSMP contain up-to-date information about your agency's legal authority? **YES/ NO**
6. Does your agency have sufficient legal authority to control sewer use and maintenance? **YES/ NO**
7. If you answered NO to questions 5 and/or 6, describe content and schedule for necessary changes.

#### IV. OPERATIONS AND MAINTENANCE

##### REFERENCE MATERIAL

- **Cleaning schedules**
- **List or map of hotspots**
- **Work orders**
- **Service call data**
- **Customer feedback**

**Table 1. Annual Blockage Statistics and Preventive Maintenance Activities**

	2008	2009	2010	2011
<b>Number of Clear Blockage requests (laterals)</b>	<b>89</b>	<b>85</b>	<b>79</b>	
<b>Number of Clear Blockage requests (mains)</b>	<b>1</b>	<b>4</b>	<b>3</b>	
<b>Amount Cleaned (LF)</b>	<b>2,133,987</b>	<b>2,501,406</b>	<b>3,553,440</b>	

8. Does the SSMP contain up-to-date information about your agency's preventive maintenance activities? **YES**/ NO

9. Considering the information in Tables 1 – 3, are your agency's preventive maintenance activities sufficient and effective in reducing and preventing SSOs and blockages? **YES**/ NO

10. If you answered NO to questions 8 and/or 9, describe content and schedule for necessary improvements.

**a. SCHEDULED INSPECTIONS AND CONDITION ASSESSMENT**

REFERENCE MATERIAL

- **Inspection reports**
- **Infiltration and Inflow (I/I) monitoring studies and reports**
- **Pipe and manhole condition data**

11. Does the SSMP contain up-to-date information about your agency's inspections and condition assessment?

**YES/ NO**

12. Are your agency's scheduled inspections and condition assessment system effective in locating, identifying, and addressing deficiencies?

**YES/ NO**

13. If you answered NO to questions 11 and/or 12, describe content and schedule for necessary changes.

**Table 2. Annual Inspection and Condition Assessment Activities**

	2008	2009	2010	2011
<b>LF of CCTV Inspection</b>	<b>463,461</b>	<b>425,166</b>	<b>239,709</b>	
<b># of MH to MH Segments Inspected</b>	<b>1810</b>	<b>1643</b>	<b>978</b>	
<b># of Inspected Pipes Assigned to CIP</b>	<b>48</b>	<b>36</b>	<b>36</b>	

## V. DESIGN AND CONSTRUCTION STANDARDS

### REFERENCE MATERIAL

- **Design and construction standards**
- **Ordinances**

14. Does the SSMP contain up-to-date information about your agency's design and construction standards?

**YES**/ NO

15. Are design and construction standards, as well as standards for inspection and testing of new and rehabilitated facilities sufficiently comprehensive and up-to-date?

**YES**/ NO

16. If you answered NO to questions 14 and/or 15, describe content and schedule for necessary revisions.

## VI. OVERFLOW EMERGENCY RESPONSE PLAN

### REFERENCE MATERIAL

- **Data submitted to CIWQS**
- **Service call data**

**Table 3. Annual SSO Statistics**

	2008	2009	2010	2011
<b>Number of Private Owned SSOs</b>	<b>17</b>	<b>14</b>	<b>11</b>	
<b>Number of Public Owned SSOs</b>	<b>1</b>	<b>2</b>	<b>8</b>	
<b>Total number of SSOs</b>	<b>18</b>	<b>16</b>	<b>19</b>	
<b>Number of Public SSOs per 100 miles of sewer per year</b>	<b>.18</b>	<b>.36</b>	<b>1.4</b>	
<b>Number of Public SSOs &lt; 100 gallons</b>	<b>0</b>	<b>0</b>	<b>3</b>	
<b>Number of Public SSOs 100 to 999 gallons</b>	<b>1</b>	<b>1</b>	<b>2</b>	
<b>Number of Public SSOs 1,000 to 9,999 gallons</b>	<b>0</b>	<b>1</b>	<b>2</b>	
<b>Number of Public SSOs &gt;10,000 gallons</b>	<b>0</b>	<b>0</b>	<b>1</b>	
<b>Total volume of SSOs (including Private)</b>	<b>3810</b>	<b>7790</b>	<b>27634</b>	
<b>Total volume recovered</b>	<b>2860</b>	<b>4375</b>	<b>21368</b>	
<b>Net volume of SSOs (total minus recovered)</b>	<b>950</b>	<b>3415</b>	<b>6246</b>	
<b>Total volume conveyed to wastewater treatment plant</b>	<b>16.756 MGD</b>	<b>16.543 MGD</b>	<b>16.225 MGD</b>	
<b>Percent volume conveyed (100 x (Total volume conveyed – Volume of SSOs) / Total volume conveyed)</b>	<b>99.99%</b>	<b>99.97%</b>	<b>99.96%</b>	
<b>Public SSOs caused by:</b>				
<b>Roots</b>			<b>2</b>	
<b>Grease</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>Debris</b>				
<b>Pipe failure</b>				
<b>Pump station failure</b>			<b>1</b>	
<b>Contractor</b>			<b>2</b>	
<b>Unknown</b>			<b>2</b>	
<b>Number of locations with more than one SSO in the past year</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Average response time – during business hours</b>	<b>&lt;60 min</b>	<b>&lt;30 min</b>	<b>&lt;30 min</b>	
<b>Average response time - after business hours</b>	<b>&lt;120 min</b>	<b>&lt;90 min</b>	<b>&lt;90 min</b>	

17. Does the SSMP contain an up-to-date version of your agency's Overflow Emergency Response Plan?

**YES** / NO

18. Considering the information in Table 1, is the Overflow Emergency Response Plan effective in handling SSOs?

**YES** / NO

## VII. FATS, OILS, AND GREASE (FOG) CONTROL PLAN

### REFERENCE MATERIAL

- List or map of FOG sources in service area
- List or map of hotspots
- Cleaning schedules
- Restaurant inspection reports or summaries
- Data submitted to CIWQS
- Service call data

Table 4. FOG Control Statistics

	2008	2009	2010	2011
Number of Public SSOs Caused by FOG	1	1	1	
Volume of Non-Recovered Public FOG SSOs (gal)	150	800	50	
Number of Private SSOs Caused by FOG	7	2	3	
Volume of Non-Recovered Private FOG SSOs (gal)	370	700	50	
Critical cleaning (LF)	475,476	536,927	564,960	

19. Does the SSMP contain up-to-date information about your agency's FOG control program?

**YES** / NO

20. Considering the information in Table 2, is the current FOG program effective in documenting and controlling FOG sources?

**YES** / NO

21. If you answered NO to questions 19 and/or 20, describe content and schedule for necessary changes.

Note: Wastewater Engineering is working on updating the web page to target residential locations as well as commercial establishments for grease reduction

## VIII. CAPACITY MANAGEMENT

### REFERENCE MATERIAL

- **Capacity assessment reports**
- **CIP**
- **SSO data**

**Table 5. SSOs Caused by Hydraulic Limitations**

	2008	2009	2010	2011
<b>Number of SSOs caused by capacity limitations</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>LF of System in Hydraulic Model</b>	<b>383,012</b>	<b>1,500,000</b>	<b>2,500,000</b>	

22. Does the SSMP contain up-to-date information about your agency's capacity assessment?

**YES**/ NO

23. Has your agency completed a capacity assessment and identified and addressed any hydraulic deficiencies in the system?

**YES**/ NO

24. If you answered NO to questions 22 and/or 23, describe content and schedule for necessary activities.



## IX. MEASURES AND ACTIVITIES

### a. COLLECTION SYSTEM MAPS

#### REFERENCE MATERIAL

##### ➤ **Summary of information included in mapping system**

25. Does the SSMP contain up-to-date information about your agency's maps? **YES**/ NO

26. Are your agency's collection system maps complete, up-to-date, and sufficiently detailed? **YES**/ NO

27. If you answered NO to questions 25 and/or 26, describe content and schedule for necessary changes.

### b. RESOURCES AND BUDGET

#### REFERENCE MATERIAL

##### ➤ **Current Capital Improvement Plan (CIP)**

##### ➤ **Current operating budget**

28. Does the SSMP contain up-to-date information about your agency's resources and budget? **YES**/ NO

29. Are your agency's resources and budget sufficient to support effective sewer system management? **YES**/ NO

30. Do your agency's planning efforts support long-term goals? **YES**/ NO

31. If you answered NO to questions 28, 29, and/or 30, describe content and schedule for necessary changes.

### c. CONTINGENCY EQUIPMENT AND REPLACEMENT INVENTORIES

#### REFERENCE MATERIAL

##### ➤ **Funds spent on equipment and materials**

##### ➤ **Equipment and parts inventory**

32. Does the SSMP contain up-to-date information about equipment and replacement inventories? **YES**/ NO

33. Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance? **YES**/ NO

34. If you answered NO to questions 32 and/or 33, describe content and schedule for necessary arrangements.

**d. TRAINING**

REFERENCE MATERIAL

➤ **Employee training records**

35. Does the SSMP contain up-to-date information about your agency's training expectations and programs? **YES** / NO

36. Do supervisors believe that their staff is sufficiently trained? **YES** / NO

37. Are staff satisfied with the training opportunities and support offered to them? **YES** / NO

38. If you answered NO to questions 35, 36, and/or 37, describe content and schedule for necessary improvements.

## **X. SSMP AUDITS**

39. Will this SSMP Audit be submitted with the Annual Report to the Regional Water Board by May 1?

**YES** / NO

## **XI. COMMUNICATION PROGRAM**

### REFERENCE MATERIAL

- **Mailings and mailing lists**
- **Website**
- **Other communication records such as newspaper ads, site postings, or other outreach**
- **Customer feedback**

40. Does the SSMP contain up-to-date information about your agency's public outreach activities?

**YES** / NO

41. Does the SSMP contain up-to-date information about your agency's communications with satellite and tributary agencies?

**YES** / NO

42. Has your agency effectively communicated with the public and other agencies about the SSMP, and addressed feedback?

**YES** / NO

43. If you answered NO to questions 40, 41, and/or 42, describe content and schedule for necessary improvements.